

U.S.S.N. 10/604,498

2

15-XT-6176 (GEMS-A 0130 PA)

In the claims:

1. (Currently Amended) An imaging X-ray tube rotor assembly for an imaging tube comprising:

a shaft;

an x-ray tube rotor core produced at least partially of a non-corrosive material and integrally formed as a single component with said shaft comprising;

at least one slot; and

at least one bar; and

a non-sprayed-on non-corrosive sleeve directly coupled to, at least partially covering, and rotational with said rotor core.

2. (Previously Presented) An imaging X-ray tube rotor assembly as in claim 1 wherein said rotor core is produced at least partially from a magnetic non-corrosive material.

3. (Previously Presented) An imaging X-ray tube rotor assembly as in claim 1 wherein said rotor core approximately comprises at least 12% chromium.

4. (Previously Presented) An imaging X-ray tube rotor assembly as in claim 1 wherein said rotor core at least partially comprises stainless steel.

5. (Previously Presented) An imaging X-ray tube rotor assembly as in claim 1 wherein said non-sprayed-on non-corrosive sleeve comprises an oxidized exterior surface.

U.S.S.N. 10/604,498

3

15-XT-6176 (GEMS-A 0130 PA)

6. (Previously Presented) An imaging X-ray tube rotor assembly as in claim 1 wherein said slot is integrally formed with said rotor core and said bar is produced at least partially from a non-magnetic highly conductive material coupled to said slot.

7. (Original) An imaging X-ray tube rotor assembly as in claim 6 wherein said non-magnetic highly conductive material comprises at least one of the following: copper, aluminum, silver, nickel, cobalt, and an alloy formed of two or more of the stated materials.

8. (Previously Presented) An imaging X-ray tube rotor assembly as in claim 1 further comprising:

a plurality of slots integrally formed with said rotor core; and

a plurality of bars produced at least partially from a non-magnetic highly conductive material and coupled to said plurality of slots.

9. (Original) An imaging X-ray tube rotor assembly as in claim 8 wherein said non-magnetic highly conductive material comprises at least one of the following: copper, aluminum, silver, nickel, cobalt, and an alloy formed of two or more of the stated materials.

10. (Previously Presented) An imaging X-ray tube rotor assembly for an imaging tube comprising:

a rotor core comprising;

at least one slot; and

at least one bar;

a non-sprayed-on non-corrosive sleeve coupled to and at least partially covering said rotor core; and

U.S.S.N. 10/604,498

4

15-XT-6176 (GEMS-A 0130 PA)

a sheet coupled to said rotor core and produced at least partially from a non-magnetic highly conductive material.

11. (Previously Presented) An imaging X-ray tube rotor assembly as in claim 1 wherein an exterior surface of said non-sprayed-on non-corrosive sleeve is oxidized.

12. (Previously Presented) An imaging X-ray tube rotor assembly as in claim 1 wherein an exterior surface of said non-sprayed-on non-corrosive sleeve is non-oxidized.

13. (Original) An imaging X-ray tube rotor assembly as in claim 10 wherein said non-magnetic highly conductive material comprises at least one of the following: copper, aluminum, silver, nickel, cobalt, and an alloy formed of two or more of the stated materials.

14. (Previously Presented) An imaging X-ray tube rotor assembly as in claim 1 wherein said non-sprayed-on non-corrosive sleeve comprises approximately at least 12% chromium.

15. (Previously Presented) An imaging X-ray tube rotor assembly as in claim 1 wherein said non-sprayed-on non-corrosive sleeve comprises stainless steel.

16. (Currently Amended) An imaging X-ray tube rotor assembly comprising:

[[a]]an x-ray tube rotor core produced at least partially from stainless steel and comprising;

U.S.S.N. 10/604,498

5

15-XT-6176 (GEMS-A 0130 PA)

a plurality of slots integrally formed with said rotor core; and
a plurality of bars produced at least partially from a non-magnetic
highly conductive material and coupled to said plurality of slots; and
a non-sprayed-on sleeve in contact with, coupled over, and rotational with
said rotor core.

17. (Canceled)

18. (Currently Amended) A method of producing an imaging X-ray tube rotor assembly comprising:

forming a rotor core at least partially from a magnetic non-corrosive iron based material having at least one slot, wherein said rotor core and said at least one slot are integrally formed as a single component; and

forming a sleeve produced at least partially from a non-magnetic, non-sprayed-on, and non-corrosive material directly over and in contact with said rotor core.

19. (Original) A method as in claim 18 wherein forming a rotor core comprises forming said rotor core at least partially from chromium.

20. (Currently Amended) A method as in claim 18 of producing an imaging X-ray tube rotor assembly comprising:

forming a rotor core at least partially from a magnetic non-corrosive iron based material;

forming a sleeve produced at least partially from a non-magnetic, non-sprayed-on, and non-corrosive material directly over and in contact with said rotor core; and

U.S.S.N. 10/604,498

6

15-XT-6176 (GEMS-A 0130 PA)

~~further comprising~~ forming a sheet over said rotor core and at least partially from a non-magnetic highly conductive material.

21. (Canceled)

22. (Currently Amended) A method as in claim 18 of producing an imaging X-ray tube rotor assembly comprising:

forming a rotor core;

forming a sleeve over and in contact with said rotor core from at least partially a non-sprayed on non-corrosive material; and

~~further comprising oxidizing inducing oxidation of an exterior surface of said sleeve through applied heat.~~

23. (Original) A method as in claim 18 further comprising:
integrally forming a slot in said rotor core; and
forming a bar within said slot and at least partially from a non-magnetic highly conductive material.

24. (Original) A method as in claim 18 further comprising:
integrally forming a plurality of slots in said rotor core; and
forming bars within said plurality of slots and at least partially from a non-magnetic highly conductive material.

25. (Original) A method as in claim 18 further comprising oxidizing an exterior surface of the imaging tube rotor assembly.

U.S.S.N. 10/604,498

7

15-XT-6176 (GEMS-A 0130 PA)

26. (Previously Presented) An imaging X-ray tube rotor assembly as in claim 1 wherein said non-sprayed-on non-corrosive sleeve comprises an oxidized exterior surface generated by a greening effect.